

SEMA 6201 System Modeling and Analysis

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Abstract

The course “SEMA 6201” System Modeling and Analysis is a 5 day course. The first two days address the CAFCR model that serves as a framework for systems architecting and design. Core to the CAFCR model is the use of multiple viewpoints and multiple visualizations. The last three days of the course address quantification, modeling and analysis.

Distribution

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draft

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Course Program

multi-view architecting

day 1	1. introduction, overall approach
	2. black box and customer context
day 2	3. design side
	4. qualities, story telling
day 3 morning	5. threads of reasoning

modeling and analysis

after-noon	6. input facts, data, uncertainties
day 4	7. system modeling
	8. application, life-cycle modeling
day 5	9. integration and reasoning
	10. analysis, using models

Group Assignment

week 1 Consolidate work of course in 20 slide presentation as baseline.

week 2 Present to company management; collect facts and figures from the company.

week 3 Make two to three models of the "system".

week 4 Model the customer context.

week 5 Model the Life cycle context.

week 6 Model one of the relevant system qualities.

week 7 Consolidate your work and the conclusions/results in a 20 slide presentation.

The target audience of this presentation is your management. The presentation should be top-down, starting with objective, need or problem statement.

Week 8 Identify required changes in models made so far, due to increased insight;

Change one of the models accordingly.

week 9 Identify next models to be made, measurements to be done,

or fact finding to take place.

Update the presentation with feedback from management and future work.

for more details see paper <www.gaudisite.nl/SEMACoursePaper.pdf>

Individual Assignment

Write an individual reflection report after finishing the group assignment, answering the following questions:

What is the credibility and accuracy level of the models so far and why?

What is the problem statement that should be addressed by this modeling effort?

What would you do differently if you would have to do this again?

How are you going to apply this in practice?

preferred size 1 A4, max 2 A4.